

NORYL™ PPE POWDERS + CONCENTRATES 6850C

REGION EUROPE

DESCRIPTION

NORYL 6850C resin concentrate is an non-reinforced blend of polyphenylene ether (PPE) + general purpose polystyrene (GPPS). This material is in granule form and is optimized for blending with polystyrene resins. NORYL 6850C resin may be an excellent candidate in microwavable food packaging applications and is compliant with US and European food contact regulations

| GENERAL INFORMATION | |
|-----------------------|--|
| Features | Hydrolytic Stability, Amorphous, Low Shrinkage, Low Moisture Absorption, Low Specific Gravity, Transparent/Translucent, Food contact, Creep resistant, Dimensional stability, High stiffness/Strength, No PFAS intentionally added |
| Fillers | Unreinforced |
| Polymer Types | Polyphenylene Ether + General Purpose PS (PPE+GPPS) |
| Processing Techniques | Injection Molding |

| INDUSTRY | SUB INDUSTRY |
|----------------------------|--------------------------|
| Electrical and Electronics | Circuit Boards/Additives |
| Packaging | Industrial Packaging |

TYPICAL PROPERTY VALUES

Revision 20241010

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|-------|--------------|
| MECHANICAL ⁽¹⁾ | | | |
| Tensile Stress, yield, 50 mm/min | 70 | MPa | ISO 527 |
| Tensile Stress, break, 50 mm/min | 70 | MPa | ISO 527 |
| Tensile Strain, yield, 50 mm/min | 5 | % | ISO 527 |
| Tensile Strain, break, 50 mm/min | 5 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 2540 | MPa | ISO 527 |
| Flexural Stress, yield, 2 mm/min | 107 | MPa | ISO 178 |
| Flexural Modulus, 2 mm/min | 2580 | MPa | ISO 178 |
| IMPACT ⁽¹⁾ | | | |
| Izod Impact, notched 80*10*4 +23°C | 4 | kJ/m² | ISO 180/1A |
| Izod Impact, notched 80*10*4 -30°C | 2 | kJ/m² | ISO 180/1A |
| Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm | 4 | kJ/m² | ISO 179/1eA |
| Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm | 3 | kJ/m² | ISO 179/1eA |
| THERMAL ⁽¹⁾ | | | |
| CTE, -40°C to 40°C, flow | 7.E-05 | 1/°C | ISO 11359-2 |
| CTE, -40°C to 40°C, xflow | 7.E-05 | 1/°C | ISO 11359-2 |
| Vicat Softening Temp, Rate A/ 120 | 151 | °C | ISO 306 |
| Vicat Softening Temp, Rate B/50 | 143 | °C | ISO 306 |
| Vicat Softening Temp, Rate B/ 120 | 145 | °C | ISO 306 |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 125 | °C | ISO 75/Af |
| PHYSICAL ⁽¹⁾ | | | |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---------------------------------------|----------------|-------------------------|--------------|
| Density | 1.06 | g/cm ³ | ISO 1183 |
| Water Absorption, (23°C/saturated) | 0.25 | % | ISO 62-1 |
| Moisture Absorption (23°C / 50% RH) | 0.06 | % | ISO 62 |
| Melt Volume Rate, MVR at 280°C/5.0 kg | 40 | cm ³ /10 min | ISO 1133 |
| Melt Viscosity, 280°C, 1500 sec-1 | 133 | Pa-s | ISO 11443 |
| INJECTION MOLDING ⁽²⁾ | | | |
| Drying Temperature | 80 – 100 | °C | |
| Drying Time | 2 – 4 | Hrs | |
| Melt Temperature | 280 – 300 | °C | |
| Nozzle Temperature | 260 – 280 | °C | |
| Front - Zone 3 Temperature | 280 – 300 | °C | |
| Middle - Zone 2 Temperature | 260 – 280 | °C | |
| Rear - Zone 1 Temperature | 240 – 260 | °C | |
| Hopper Temperature | 60 – 80 | °C | |
| Mold Temperature | 60 – 100 | °C | |

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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